Comment on the proposed conservation of prevailing usage of TERMOPSIDAE Holmgren, 1911, *Termopsis* Heer, 1849 and *Miotermes* Rosen, 1913 (Insecta, Isoptera)

(Case 3244; see BZN **60**: 119–123)

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The genus *Termopsis* Heer, 1849 is compounded by the stem *term-* (of genus *Termes*, a Latin third declension masculine substantive) and ending *-opsis*, taken from the Greek word *ópsis*, meaning 'aspect' or 'appearance', which is feminine. According to Article 30.1.2 of the Code, the genus *Termopsis* is feminine in gender (this name is actually given as an example in the Code). All zoological genera ending in *-opsis*, irrespective of the original genus given by their authors, are feminine. Original specific names that are not in accordance with the current genus gender must be emended (see Article 34.2).

Article 68.1 explicitly states the precedence of the different kinds of type species fixation. Type species fixation by original designation has precedence over type species fixation by monotypy. Consequently, I request that para. 11 of Case 3244 be amended as follows:

(2) to place on the Official List of Generic Names in Zoology the following names:
  (a) *Termopsis* Heer, 1849 (gender: feminine), type species by designation in (1) above *Termopsis bremii* Heer, 1849;
  (b) *Miotermes* Rosen, 1913 (gender: masculine), type species by original designation *Termopsis procera* Heer, 1849 . . .

Comment on the proposed precedence of *Bolboceras* Kirby, 1819 (July) (Insecta, Coleoptera) over *Odonteus* Samouelle, 1819 (June)

(Case 3097; see BZN **59**: 246–248, 280–281)

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1. We oppose Jameson & Howden's application to give *Bolboceras* Kirby, 1819 (July) precedence over *Odonteus* Samouelle, 1819 (June) because the latter name is not only the older synonym but is also more frequently used in the current literature than *Bolboceras*. We also oppose including names currently considered to be junior

synonyms on the Official Lists of Generic and Specific Names in Zoology. Since opinions differ about whether Kirby designated a type species for *Bolboceras*, we ask the Commission to designate as the type species of this genus the species that Kirby chose.

The usage problem

2. The main concern we have about Jameson & Howden's application is that they neglect the established and frequent use of *Odonteus* Samouelle in Europe in taxonomic, faunistic and conservation literature. Krikken (1978) rediscovered Samouelle's first introduction of this name into the literature and stated that the forgotten original spelling was *Odonteus*. Later, he considered *Bolboceras* Kirby, 1819 to be a junior synonym of *Odonteus* Samouelle, 1819 (Krikken, 1979, p. 37; 1984, p. 23). Nikolaev (1980), Shirt (1986) and Jessop (1986) had already accepted this synonymy before Krell (1990) presented further evidence for the temporal precedence of Samouelle's name. Before Krikken (1978), the spelling *Odonteus* had also been used occasionally (Hildt, 1892, p. 216, 1896, p. 215; Kinelski & Szujecki, 1959, p. 234). The claims of Jameson & Howden (BZN **59**, p. 247) that Krell (1990) was the only one to use *Odonteus* Samouelle in recent times, and of Jameson (2002, p. 25) that this name 'has not been used in the primary literature for over 70 years', are not correct. Harpootlian in his comment (BZN **59**, pp. 280–281) mentioned two more references, but even he underestimated enormously the extent of usage of this name. The name *Odonteus* Samouelle, 1819 (with or without mentioning the author) has been used as a valid name in its original spelling by Koch (1991, p. 350), Krell (1991; 1993, p. 23; 1994, p. 13; 1995, p. 52; 1996, p. 19; 2001, p. 247), Hyman & Parsons (1992, pp. 23, 33, 334), Krell & Fery (1992, p. 202), Silfverberg (1992, p. 37), Duff (1993, p. 126), Ball (1995), Carpaneto & Piattella (1995, p. 3), Gürlich et al. (1995, p. 71), Ádám (1996, p. 304), Alexandrovitch et al. (1996, p. 29), Hansen (1996, p. 125), Kahlen & Hellrigl (1996, p. 473), Kalisiak (1996, p. 1), Klausnitzer & Krell (1996, pp. 31f), López-Colón et al. (1996, p. 4), Nikritskii et al. (1996, p. 51), Rössner (1996, p. 49), Melloni & Landi (1997, p. 25), Telnov et al. (1997, p. 55), Carpaneto et al. (1998, p. 18; 2001, p. 313), Köhler & Klausnitzer (1998, p. 128), Nádai & Merkl (1999, p. 216), Martín-Piera & López-Colón (2000, pp. 182, 498), Rheinheimer (2000, p. 102), Geiser (2001, p. 405), Jaszay (2001, p. 106), Lo Cascio (2001, p. 176), Ballerio (2002, p. 60), Frank & Konzelmann (2002, p. 129) and Schaefer (2002, p. 400). The correct spelling with erroneous authorship was used by Král (1993; *Odonteus* Dejean, 1821) and Ádám (1994, p. 12; *Odonteus* Leach, 1819). The incorrect subsequent spelling '*Odontaeus* Samouelle' was used by Paulian & Baraud (1982, p. 57), Zunino (1984, p. 18), Baraud (1992, p. 46) and Bunalski (1999, p. 8), and the spelling *Odontaeus* without author or with incorrect authorship by, e.g., Shirt (1987, p. 22), Schulze (1992, p. 182), Bordat (1997, p. 15), Mittal (1998, 2000), Mitter (2000, p. 63) (see next paragraph for older references).

3. *Odontaeus* Dejean, 1821 is in fact an incorrect subsequent spelling of *Odonteus* Samouelle, 1819 and not a separate genus group name because it was used at the same time for the same species. This cannot be explained by mere coincidence. After Samouelle's indication in 1819, *Odonteus* became the established name for *Scarabaeus mobilicornis* Fabricius, 1775 (then synonymized with *Scarabaeus armiger* Scopoli, 1772) and related species, although before Krikken's rediscovery of the

correct authorship and spelling, the name has often been attributed to other authors and the incorrect spelling *Odontaeus* has been used (Klug, 1845, p. 37; Horn, 1870, p. 50; Bertolini, 1891, p. 165; Reitter, 1893, p. 5; Boucomont, 1902, 1911; Arens, 1922; Wallis, 1928; Luigioni, 1929, p. 389; Endrődi, 1956, p. 29; Landin, 1957, p. 54; Janssens, 1960, p. 111; Machatschke, 1969, p. 274; Allenspach, 1970, p. 42 etc.). Before Cartwright (1953) rediscovered Curtis's (1829) type species designation for *Bolboceras* Kirby, the American species of this genus were in *Odontaeus* whereas *Bolboceras* had been used for more than 100 species of other genera (Horn, 1870, pp. 49–50; Boucomont, 1902, 1911; Wallis, 1928). Because of Curtis's (1829) type species designation for *Bolboceras*, Cartwright transferred the *Odontaeus* species to *Bolboceras* and the American *Bolboceras* species to *Bradycinetulus* Cockerell, *Bolbocerastes* Cartwright and *Bolborhombus* Cartwright. In the Old World, this shift of the name *Bolboceras* to what was formerly *Odontaeus* has only been followed by a few authors (Paulian, 1959, p. 44; Benasso, 1971, p. 133; Bangsholt et al., 1979, p. 31; Lundberg, 1986, p. 65; Nikolaev, 1987, p. 27; Barbero & Cavallo, 1999, p. 70), whereas from the 1980s the usage of the correct spelling and authorship of *Odonteus* has become widely accepted and stable (see references above).

4. Hence, Jameson & Howden's application cannot be followed because Article 23.9.3 expressly states that the junior synonym can prevail only if 'the use of the older synonym would threaten stability or universality or cause confusion'. We have demonstrated above that in this case there is not any 'stability or universality' in the use of *Bolboceras*, while there has been relatively stable use of *Odonteus*. The only 'stability' we can find in the use of *Bolboceras* is geographically restricted to the North American entomological community. This usage is relatively recent. In the older North American literature we can still find cases of use of *Odontaeus* (e.g. Wallis, 1928; Sim, 1930). In the European entomological and conservation community, it is *Odonteus* that is stable since this name has been used predominantly for over a century and a half (hence there would be a lot of confusion in the European entomological and conservation community if the name *Bolboceras* were to be ruled as the name to follow). In the absence of 'stability or universality' in the use of the junior synonym (*Bolboceras*), Article 23.9.3 cannot be applied in this case, and the only sensible approach is to strictly follow the Principle of Priority and rule that the name to use is *Odonteus*.

The type species problem

5. Contrary to Jameson & Howden (BZN **59**, p. 247) the type species of *Odonteus* Samouelle is *Scarabaeus mobilicornis* Fabricius, 1775 (p. 11), not *S. mobilicornis* Marsham, 1802 (according to Article 67.7). Although Samouelle wrote '*Scarabaeus mobilicornis*, Marsh.', Marsham is not the author of this species but simply used Fabricius's species name (Marsham, 1802, p. 8). Since *S. mobilicornis* Fabricius is an established junior synonym of *Scarabaeus armiger* Scopoli, 1772 (Boucomont, 1911, p. 15; Baraud, 1992, p. 46; Martín-Piera & López-Colón, 2000, p. 498), it should not be placed on the Official List of Specific Names in Zoology. Instead, its senior valid synonym (*Scarabaeus armiger* Scopoli, 1772) might be placed on the list.

6. We wonder whether Curtis's (1829) type species designation is valid. First Westwood (1855, p. 12) and then Boucomont (1911, p. 334) considered Kirby's remark in the original description 'My details of *Bolboceras* were taken from

B. quadridens' to be a type species designation (Westwood: 'The species, moreover, which it will be advisable to regard as the type of *Bolboceras*, will be *Sc. quadridens*, Linn., as that was the species dissected by Mr. Kirby.'; Boucomont: 'L'auteur de ce genre, Kirby, a pris comme espèce typique *B. quadridens* L. (F.)'. Kirby attributed *B. quadridens* erroneously to Linnaeus; this name was cited only in the last edition of *Systema Naturae*, edited by Gmelin (Gmelin, 1788, p. 1530) who referred explicitly to Fabricius's Indian species (Fabricius, 1781, p. 11), not to Panzer's (1793) *Scarabaeus quadridens*, which is a junior synonym of the European species *Bolbelasmus unicornis* (Schrank, 1789) (original spelling: *unicornu*) according to Klug (1845, p. 39).

7. Kirby's remark is certainly the reason why *Odonteus* and *Bolboceras* had been considered to be distinct genera for a long time (Klug, 1845, pp. 36–37; Horn, 1870, p. 50; Reitter, 1893, pp. 4–5). In our opinion, Kirby declared explicitly that he used exclusively *B. quadridens* to describe the genus. Therefore, the other species were included after the description was compiled. Hence, *B. quadridens* is neither only an example (sensu Article 67.5.1.) nor ambiguous under Article 67.5.3. It is, however, not explicitly designated as the type species either, but in fact it is the type species that Kirby chose. Jameson and Howden are right that the first unequivocal type species designation is that by Curtis (1829): *Scarabaeus mobilicornis*. Therefore, we ask the Commission to set aside Curtis's type species designation and to designate *Scarabaeus quadridens* as the type species of *Bolboceras* Kirby, 1819, following Kirby's intention and taking into account the current usage in Asia (see below). However, this act creates a new junior synonym: In 1979, Nikolajev described the monotypic genus *Indobolbus* for *Bolboceras quadridens*. According to *Zoological Record*, *Indobolbus* has only been used after its description by Krikken (1984) who included 10 other former *Bolboceras* species in this genus. However, in Asia both the type species of *Indobolbus*, *Bolboceras quadridens*, and *Indobolbus transversalis* are still assumed to belong to *Bolboceras* by Asian authors (Mittal, 1981; Yadav et al., 1990; Chandra, 1996). Moreover, *Bolboceras* is not only still in use for *Indobolbus* species, but used in the old broad sense of Boucomont (1902), which simply shows that the works of modern authors have not been considered in Asia so far (but also shows that the use of *Bolboceras* is not stable and universal). If the Commission decides to follow our proposal to designate *B. quadridens* as the type species of *Bolboceras* Kirby, 1819, *Indobolbus* Nikolajev, 1979, which has the same type species, will be a junior synonym. This would mean the shift of the name *Bolboceras* Kirby from a genus of ten American species to a genus of 11 species from the Afrotropical and Oriental regions (where the name is still in use). However, since *Bolboceras* is not the valid name for the American species anyway, this shift would not cause any more confusion than the necessary revived utilisation of the valid name *Odonteus* in North America, and only North America will be affected.

8. To fix the identity of *Bolboceras quadridens* Fabricius, 1781 beyond doubt, the first author of this comment (F.-T. Krell) herewith designates the lectotype. The species has been described from material of the Banks collection, which is housed in The Natural History Museum, London. Although, two further specimens of *B. quadridens* are in Fabricius's collection in Kiel (Zimsen, 1964, p. 24) they do not have to be considered because two specimens exist in the Banks collection. The first author chose the smaller specimen without label to be designated as the lectotype because it belongs to the species currently considered to be *B. quadridens* (as diagnosed by the

generic and specific characters given by Nikolajev (1979, p. 190) and Krikken (1984, pp. 27, 34) for *Indobolbus* Nikolajev, and Fabricius (1781, p. 11) and Chandra (1996) for *B. quadridens*). A second specimen with the handwritten label 'Scarab. quadridens / Fabr. Sp. Ins. no 37' belongs to *Bolboceras nigricans* Westwood, 1848, and does not correspond with the original description ('capitis clypeo bidentato'), because in *B. nigricans* the clypeus is pointed.

9. The International Commission on Zoological Nomenclature is accordingly asked:

(1) to use its plenary power to set aside all previous fixations of type species for the nominal genus *Bolboceras* Kirby, 1819 and to designate *Scarabaeus quadridens* Fabricius, 1781 as type species;

(2) to place on the Official List of Generic Names in Zoology the following names:
  (a) *Odonteus* Samouelle, 1819 (gender: masculine), type species by monotypy: *Scarabaeus mobilicornis* Fabricius, 1775;
  (b) *Bolboceras* Kirby, 1819 (gender: masculine), type species by designation in (1) above *Scarabaeus quadridens* Fabricius, 1781;

(3) to place on the Official List of Specific Names in Zoology the name *quadridens* Fabricius, 1781, as published in the binomen *Scarabaeus quadridens* and as defined by the lectotype designated in para. 8 above (specific name of the type species of *Bolboceras* Kirby, 1819).

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Comments on the proposed conservation of the specific name *Papilio eurymedon* Lucas, 1852 (Insecta, Lepidoptera)

(Case 3222; see BZN **59**: 114–116; 204)

(1) Andrew Wakeham-Dawson (Executive Secretary)

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Even though this application involves a situation in which reversal of precedence does not require Commission action (see Article 23.9.2), the case was brought to the Commission for suppression of the senior name in response to Recommendation 23A of the Code. Before the Commission can vote on the issue of suppression, the authors must show evidence that the conditions of Article 23.9.1.2 have been met. The junior name, *Papilio eurymedon* Lucas, 1852, must have been used in at least 25 works, published by at least 10 authors in the immediately preceding 50 years and encompassing a span of not less than 10 years.

This evidence was presented in the original application, but incorrectly edited from the published version. In addition to references published with the application, the evidence that the conditions of Article 23.9.1.2 are met in this case is as follows: Dos Passos (1964, p. 36), Emmel & Emmel (1973, p. 15), Lewis (1973, p. 12), Howe (1975, p. 400), Tyler (1975, p. 81), Orsak (1977, p. 66), Dornfield (1980, p. 42), Ferris & Brown (1980, p. 188), Miller & Brown (1981, p. 67), Hodges et al. (1983, p. 50), Beutelspacher (1984, p. 62), Collins & Morris (1985, p. 84), Emmel (1991, p. 69), Brown et al. (1992, p. 54), Emmel et al. (1992, p. 47), Feltwell (1992, p. 28), Miller (1992, p. 40), Feltwell (1993, p. 58), Stanford & Opler (1993, p. 109), Toliver et al. (1994, p. 121), Tyler et al. (1994, pl. 94), Bird et al. (1995, p. 107), Llorente et al. (1997, p. 52), Layberry et al. (1998, p. 89), plus numerous other scientific papers and popular field guides to western American butterflies of the past fifty years.

In the light of this evidence, the name *Papilio eurymedon* Lucas, 1852 is a nomen protectum under the conditions of Article 23.9.2 of the Code and the name *Papilio antinous* Donovan, 1805, which has never been used, is a nomen oblitum.

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